


MEMORANDUM:

TO: Stephen E. West
Regional Administrator
Boise Regional Office

FROM: Robert E. Baldwin, Air Quality Engineer EIT 
Boise Regional Office

SUBJECT: T2-000037, LP Wood Polymer Incorporated, Meridian, Idaho
Technical Analysis, Tier II Operating Permit No. 001-00115
Operating Permit for all Emissions Units Located at the LP Wood Polymer Facility

PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01 Sections 400 through 406 (*Rules for the Control of Air Pollution in Idaho*) (*Rules*) for Tier II operating permits.

PROJECT DESCRIPTION

This project is for the issuance of a Tier II operating permit (OP) for LP Wood Polymers, Incorporated (LP), located in Meridian, Idaho. The emissions sources of the facility are:

- baghouses
- filter receivers
- cartridge filters

These emissions sources are located on the exhaust ends of storage silos, cyclones, and pneumatic material movement devices.

FACILITY DESCRIPTION

LP Wood Polymers, Incorporated (LP) is the company that bought Hoff Lumber Company (Hoff) of Meridian. Hoff's principle business was the production of molding with several cyclones throughout the facility. LP has converted the operations into an extruded decking manufacturing facility. During the conversion process LP has eliminated the cyclones and introduced baghouses, filter receivers, and cartridge filters throughout the various processes for control of the facility's PM₁₀ (particulate matter with an aerodynamic diameter of 10 microns or less) emissions. These reductions have been beneficial to the development of the Northern Ada County PM₁₀ Maintenance Plan.

For Northern Ada County, the Idaho Department of Environmental Quality (DEQ) is currently developing a PM₁₀ Maintenance Plan to protect air quality and public health. Modeling analysis of Ada County demonstrates potential noncompliance with the ambient air quality standards for PM₁₀. The DEQ Boise Regional Office has identified Hoff as a facility that can assist DEQ in implementing this approach by cooperating with DEQ to develop a Tier II OP. Hoff was identified as a facility which did not have nor require an OP, but which has a large quantity of allowable PM₁₀ emissions that are not subject to permit limitations. Since LP purchased Hoff, these potential emissions were reduced through the LP installation of baghouses, filter receivers, and cartridge filters, and made enforceable through this Tier II OP.

The Meridian facility currently produces composite decking manufactured from wood waste and polyethylene plastic. The raw materials for this process are boxes from local sources of plastic and wood waste shipped in as super sacks by truck, or ground onsite. A super sack unloading system was installed for this purpose. Later a conversion project occurred, allowing LP a larger production capability and a large plastic storage capacity.

SUMMARY OF EVENTS

On July 3, 2000, DEQ received an application for a Tier II OP from LP. On August 2, 2000, the application was declared complete.

DISCUSSION

1. Emissions Estimates

The emissions estimates have changed considerably for this facility since LP purchased it from Hoff. With the LP introduction of receiver filters, cartridge filters, and more baghouses, LP has been able to reduce the PM₁₀ emissions to less than five tons per year, as stated within the Tier II OP. Hoff reported an estimated 22 tons of actual PM₁₀ emissions in the 1995 Emission Inventory for Ada County.

The following is an indication of the emissions after installation of associated baghouses, receiver filters and/or filter cartridges:

Unit Source	Unit ID	Emissions T/yr
• Storage Silo Baghouse Stack		0.06
• Shavings Walking-Floor Truck Seal	C1	0.263
• Shavings Truck Dump Filter Receiver	C2	0.113
• BA Baghouse	C3	0.516
• Shavings Transfer Filter Receiver	C11	0.026
• Trim Ends Tipper Bin Dump	C4	-----
• Trim Ends Baghouse	C5	1.879
• Unloading Plastic Filter Receiver	E1A	0.061
• HDPE Silo Bin Vent	C7	0.052
• HDPE Silo Bin Vent	C8	0.052
• HDPE Silo Bin Vent	C9	0.052
• HDPE Transfer Filter Receiver	C10	0.026
• Board Grinder Baghouse	E45A	0.394
• Total for Combined Sources		3.484

2. Modeling

DEQ staff performed modeling on this facility under the emissions quoted by Hoff in the 1995 Emission Inventory for Ada County. At that time, Hoff stated that their actual PM₁₀ emissions for the operational year of 1995 were 22 tons. The guidance issued by Boise Regional Office indicates that certain facilities (of which LP - formerly Hoff - is one) could be permitted if their future emissions were less than a 20% increase from their 1995 actual PM₁₀ emissions. Baghouses, receiver filters, and cartridge filters have been installed as air pollution control devices by LP, thus eliminating the use of cyclones. The Tier II OP limit issued for the facility has a combined permitted limit of less than five ton per year of PM₁₀. This limit meets the guidance and modeling requirements of the Northern Ada County PM₁₀ Maintenance Plan. The modeling results may be reviewed in the Appendix.

3. Area Classification

LP Wood Polymers, Incorporated of Ada County, Idaho, is located in AQCR 64 and Zone 11. The area is classified as nonattainment for carbon monoxide and attainment or unclassifiable for all other federal and state criteria air pollutants (i.e., PM₁₀, nitrogen oxides, volatile organic compounds, and sulfur oxides). Although the area currently has no classification for PM₁₀, it is treated as a PM₁₀ nonattainment area.

4. Facility Classification

This facility is not a designated facility as defined in IDAPA 58.01.01.006.25. This facility is classified as a B source because the potential emissions of any criteria pollutant are less than 100 tons per year.

5. Regulatory Review

This OP is subject to the following permitting requirements:

a.	<u>IDAPA 58.01.01.401</u>	Tier II Operating Permit
b.	<u>IDAPA 58.01.01.403</u>	Permit Requirements for Tier II Sources
c.	<u>IDAPA 58.01.01.404.01(c)</u>	Opportunity for Public Comment
d.	<u>IDAPA 58.01.01.404.04</u>	Authority to Revise or Renew Operating Permits
e.	<u>IDAPA 58.01.01.406</u>	Obligation to Comply
f.	<u>IDAPA 58.01.01.470</u>	Permit Application Fees for Tier II Permits
g.	<u>IDAPA 58.01.01.625</u>	Visible Emission Limitation
h.	<u>IDAPA 58.01.01.650</u>	General Rules for the Control of Fugitive Dust

6. AIRS

AIRS/AFS¹ FACILITY-WIDE CLASSIFICATION² DATA ENTRY FORM

Air Program Description	SIP ³	PSD ⁴	NESHAP ⁵	NSPS ⁶	MACT ⁷	TITLE V	AREA CLASSIFICATION
							A – Attainment U – Unclassifiable N – Non-attainment
SO ₂ ⁸	B						U-Unclassifiable
NO _x ⁹	B						U-Unclassifiable
CO ¹⁰	B						N-Non-attainment
PM ₁₀ ¹¹	B						U – Unclassifiable
PM ¹²	B						U-Unclassifiable
VOC ¹³	B						U-Unclassifiable
Total HAPs ¹⁴							
(Add additional lines if necessary.)							
VE/FE/FD ¹⁵	ND	ND	ND	ND	ND	ND	

1 AIRS Aerometric Information Retrieval System

2 AIRS/AFS CLASSIFICATION CODES:

A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant, which is below the 10 ton-per-year (T/yr) threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.

SM = Potential emissions fall below applicable major source thresholds if, and only if, the source complies with federally enforceable regulations or limitations.

B = Actual and potential emissions below all applicable major source thresholds.

C = Class is unknown.

ND = Major source thresholds are not defined (e.g., radionuclides).

3 State Implementation Plan

4 Prevention of Significant Deterioration

5 National Emission Standards for Hazardous Air Pollutants

6 New Source Performance Standards

7 Maximum Achievable Control Technology

8 Sulfur Dioxide

9 Nitrogen Oxides

10 Carbon Monoxide

11 Particulate Matter with an aerodynamic diameter less than or equal to nominal ten micrometers

12 Particulate matter

13 Volatile Organic Compounds

14 Hazardous Air Pollutants

15 VE/FE/FD (visible emissions, fugitive emissions, and fugitive dust) are entered for compliance purposes only and do not require evaluation by the permit engineer.

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FEES

Fees apply to this facility in accordance with IDAPA 58.01.01.470. The facility is subject to permit application fees for this Tier II OP of \$500.

RECOMMENDATIONS

Based on the review of the application materials and all applicable state and federal regulations, staff recommends that DEQ issue the Tier II OP to LP. An opportunity for public comment on the air quality aspects of the Tier II OP was provided in accordance with IDAPA 58.01.01.404.01.c. Staff members have notified the facility in writing of the required Tier II application fee of \$500. The permit will be issued upon receipt of the fee.

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cc: Faye Weber, Air Quality Division
Boise Regional Office Source File
Source File (001-00115)
Reading File